

The claims are:

1. 1. A plastic resin blend comprising an intumescent flame retardant and at least
2 one plastic resin.
- 1 2. The plastic resin blend of claim 1, wherein the at least one plastic resin is a
2 polyolefin.
- 1 3. The plastic resin blend of claim 2, wherein the polyolefin is selected from the
2 group consisting of:
 - 3 (a) polypropylene homopolymer;
 - 4 (b) polypropylene copolymer;
 - 5 (c) ethylene propylene diene monomer (EPDM);
 - 6 (d) maleated propylene diene monomer (m-EPDM);
 - 7 (e) ethylene-polypropylene copolymer;
 - 8 (f) maleated ethylene-polypropylene copolymer (m-EP copolymers);
 - 9 (g) a thermoplastic elastomer;
 - 10 (h) a thermoplastic rubber;
 - 11 (i) ethylene/vinyl acetate copolymer (EVA)
 - 12 (j) a poly(4-methyl-1-pentene) homopolymer;
 - 13 (k) poly(4-methyl-1-pentene/1-decene) copolymer;
 - 14 (l) very low density polyethylene (VLDPE);
 - 15 (m) low density polyethylene (LDPE);
 - 16 (n) medium density polyethylene (MDPE);
 - 17 (o) high density polyethylene (HDPE);
 - 18 (p) linear low density polyethylene (LLDPE);
 - 19 (q) crosslinked polyethylene (XLPE);

20 (r) crosslinked polypropylene (XLPP); and

21 (s) blends of any of the components (a) through (r).

1 4. The plastic resin blend of claim 3, wherein the polyolefin comprises
2 approximately 10 to 85 percent by weight of the plastic resin blend.

1 5. The plastic resin blend of claim 4, wherein the polyolefin comprises
2 approximately 50 to 75 percent by weight of the plastic resin blend.

1 6. The plastic resin blend of claim 3, wherein the polyolefin is polypropylene,
2 polyethylene, or a blend thereof, and the polyolefin comprises approximately 51 percent by
3 weight of the plastic resin when used in combination with another polyolefin.

1 7. The plastic resin blend of claim 3, wherein the thermoplastic elastomer is
2 polyurethane or polyurea.

1 8. The plastic resin blend of claim 1, wherein the intumescent flame retardant is
2 selected from the group consisting of:

- 3 (a) activated melamine pyrophosphate;
4 (b) activated melamine polyphosphate;
5 (c) activated ethylene diamine phosphate;
6 (d) activated ammonium polyphosphate;
7 (e) melamine;
8 (f) melamine phosphate;
9 (g) unactivated melamine pyrophosphate;
10 (h) unactivated melamine polyphosphate;
11 (i) melamine cyanurate; and
12 (j) blends of any of the components (a) to (i).

1 9. The plastic resin blend of claim 8, wherein the intumescent flame retardant is a
2 blend of activated ethylene diamine phosphate and melamine phosphate.

1 10. The plastic resin blend of claim 1, wherein the intumescent flame retardant
2 comprises approximately 10 to 50 percent by weight of the plastic resin blend.

1 11. The plastic resin blend of claim 10, wherein the intumescent flame retardant
2 comprises approximately 25 to 35 percent by weight of the plastic resin blend.

1 12. The plastic resin blend of claim 11, wherein the intumescent flame retardant
2 comprises approximately 33 percent by weight of the plastic resin blend for cable
3 applications.

1 13. The plastic resin blend of claim 10, wherein the intumescent flame retardant
2 comprises approximately 10 to 25 percent by weight of the plastic resin blend for injection
3 molding applications.

1 14. The plastic resin blend of claim 1, wherein the plastic resin blend is a
2 concentrate.

1 15. The plastic resin blend of claim 14, wherein the intumescent flame retardant
2 comprises approximately 30 to 95 percent by weight of the plastic resin blend.

1 16. The plastic resin blend of claim 1, further comprising at least one engineering
2 resin.

1 17. The plastic resin blend of claim 16, wherein the at least one engineering resin
2 is selected from the group consisting of:

3 (a) nylon;

4 (b) poly(butylene terephthalate);

- 5 (c) poly(ethylene terephthalate);
- 6 (d) acrylonitrile butadiene styrene (ABS);
- 7 (e) nylon 6;
- 8 (f) nylon 6/6;
- 9 (g) nylon 11;
- 10 (h) nylon 12;
- 11 (i) polycarbonate;
- 12 (j) aromatic polyamide; and
- 13 (k) blends of any of the components (a) through (j).

1 18. The plastic resin blend of claim 17, wherein the at least one engineering resin
2 is a blend of ABS/polycarbonate.

1 19. The plastic resin blend of claim 1, further comprising at least one additive.

1 20. The plastic resin blend of claim 19, wherein the additive is selected from the
2 group consisting of:

- 3 (a) hindered phenolic stabilizer;
- 4 (b) acid scavenger;
- 5 (c) acid hydrotalcite;
- 6 (d) endothermic agent;
- 7 (e) UV absorber;
- 8 (f) nanoclay;
- 9 (g) nanomaterial;
- 10 (h) filler;
- 11 (i) fiberglass;
- 12 (j) metallic filler;

13 (k) colorant; and

14 (l) blends of any of the components (a) through (k).

1 21. The plastic resin blend of claim 19, wherein the additive comprises up to
2 approximately 75 percent of the plastic resin blend based on polymer components plus the
3 additive.

1 22. The plastic resin blend of claim 21, wherein the additive comprises
2 approximately 0 to 60 weight percent of the engineering resin blend based on polymer
3 components plus the additive.

1 23. The plastic resin blend of claim 22, wherein the additive comprises
2 approximately 0 to 40 weight percent of the engineering resin blend based on polymer
3 components plus the additive.

1 24. The plastic resin blend of claim 1, further comprising a thermoset resin.

1 25. The plastic resin blend of claim 24, wherein the thermoset resin is selected
2 from the group consisting of:

- 3 (a) polyester;
- 4 (b) polyolefin;
- 5 (c) epoxy;
- 6 (d) vinyl ester;
- 7 (e) alkyl polyester;
- 8 (f) melamine isocyanurate;
- 9 (g) polyurethane;
- 10 (h) polyurea;
- 11 (i) phenolic resin;
- 12 (j) phenylene-based resin;

- 13 (k) isophthalic unsaturated polyester;
14 (l) orthophthalic unsaturated polyester; and
15 (m) blends of any of the components (a) through (l).

1 26. The plastic resin blend of claim 25, wherein the polyurethane is a
2 polyurethane foam.

1 27. An engineering resin blend comprising an intumescent flame retardant and at
2 least one engineering resin.

1 28. The engineering resin blend of claim 27, wherein the at least one engineering
2 resin is selected from the group consisting of:

- 3 (a) nylon;
4 (b) poly(butylene terephthalate);
5 (c) poly(ethylene terephthalate);
6 (d) acrylonitrile butadiene styrene (ABS);
7 (e) nylon 6;
8 (f) nylon 6/6;
9 (g) nylon 11;
10 (h) nylon 12;
11 (i) polycarbonate;
12 (j) aromatic polyamide; and
13 (k) blends of any of the components (a) through (j).

1 29. The engineering resin blend of claim 27, wherein the intumescent flame
2 retardant is selected from the group consisting of:

- 3 (a) activated melamine pyrophosphate;
4 (b) activated melamine polyphosphate;

- 5 (c) activated ethylene diamine phosphate;
- 6 (d) activated ammonium polyphosphate;
- 7 (e) melamine;
- 8 (f) melamine phosphate;
- 9 (g) unactivated melamine pyrophosphate;
- 10 (h) unactivated melamine polyphosphate;
- 11 (i) melamine cyanurate; and
- 12 (j) blends of any of the components (a) through (i).

1 30. The engineering resin blend of claim 27, further comprising at least one plastic
2 resin.

1 31. The engineering resin blend of claim 30, wherein the at least one plastic resin
2 is a polyolefin.

- 1 32. The engineering resin blend of claim 31, wherein the polyolefin is selected
2 from the group consisting of:
- 3 (a) polypropylene homopolymer;
 - 4 (b) polypropylene copolymer;
 - 5 (c) ethylene propylene diene monomer (EPDM);
 - 6 (d) maleated propylene diene monomer (m-EPDM);
 - 7 (e) ethylene-polypropylene copolymer;
 - 8 (f) maleated ethylene-polypropylene copolymer (m-EP copolymers);
 - 9 (g) a thermoplastic elastomer;
 - 10 (h) a thermoplastic rubber;
 - 11 (i) ethylene/vinyl acetate copolymer (EVA)
 - 12 (j) a poly(4-methyl-1-pentene) homopolymer;

- 13 (k) poly(4-methyl-1-pentene/1-decene) copolymer;
14 (l) very low density polyethylene (VLDPE);
15 (m) low density polyethylene (LDPE);
16 (n) medium density polyethylene (MDPE);
17 (o) high density polyethylene (HDPE);
18 (p) linear low density polyethylene (LLDPE);
19 (q) crosslinked polyethylene (XLPE);
20 (r) crosslinked polypropylene (XLPP); and
21 (s) blends of any of the components (a) through (r).

1 33. The engineering resin blend of claim 31, wherein the polyolefin comprises
2 approximately 10 to 85 percent by weight of the engineering resin blend.

1 34. The engineering resin blend of claim 33, wherein the polyolefin comprises
2 approximately 50 to 75 percent by weight of the engineering resin blend.

1 35. The engineering resin blend of claim 29, wherein the intumescent flame
2 retardant is a blend of activated ethylene diamine phosphate and melamine phosphate.

1 36. The engineering resin blend of claim 27, wherein the intumescent flame
2 retardant comprises approximately 10 to 50 percent by weight of the engineering resin blend.

1 37. The engineering resin blend of claim 36, wherein the intumescent flame
2 retardant comprises approximately 25 to 35 percent by weight of the engineering resin blend.

1 38. The engineering resin blend of claim 37, wherein the intumescent flame
2 retardant comprises approximately 33 percent by weight of the engineering resin blend for
3 cable applications.

1 39. The engineering resin blend of claim 36, wherein the intumescent flame
2 retardant comprises approximately 10 to 25 percent by weight of the engineering resin blend
3 for injection molding applications.

1 40. The engineering resin blend of claim 27, wherein the engineering resin blend
2 is a concentrate.

1 41. The engineering resin blend of claim 40, wherein the intumescent flame
2 retardant comprises approximately 30 to 95 percent by weight of the engineering resin blend.

1 42. The engineering resin blend of claim 27, wherein the at least one engineering
2 resin is a blend of ABS/polycarbonate.

1 43. The engineering resin blend of claim 27, further comprising at least one
2 additive.

1 44. The engineering resin blend of claim 43, wherein the additive is selected from
2 the group consisting of:

- 3 (a) hindered phenolic stabilizer;
- 4 (b) acid scavenger;
- 5 (c) acid hydrotalcite;
- 6 (d) endothermic agent;
- 7 (e) UV absorber;
- 8 (f) nanoclay;
- 9 (g) nanomaterial;
- 10 (h) filler;
- 11 (i) fiberglass;
- 12 (j) metallic filler;

13 (k) colorant; and

14 (l) blends of any of the components (a) through (k).

1 45. The engineering resin blend of claim 44, wherein the additive comprises up to
2 approximately 75 percent of the engineering resin blend based on polymer components plus
3 the additive.

1 46. The engineering resin blend of claim 45, wherein the additive comprises
2 approximately 0 to 60 weight percent of the engineering resin blend based on polymer
3 components plus the additive.

1 47. The engineering resin blend of claim 46, wherein the additive comprises
2 approximately 0 to 40 weight percent of the engineering resin blend based on polymer
3 components plus the additive.

1 48. The engineering resin blend of claim 27, further comprising a thermoset resin.

1 49. The engineering resin blend of claim 48, wherein the thermoset resin is
2 selected from the group consisting of:

- 3 (a) polyester;
- 4 (b) polyolefin;
- 5 (c) epoxy;
- 6 (d) vinyl ester;
- 7 (e) alkyl polyester;
- 8 (f) melamine isocyanurate;
- 9 (g) polyurethane;
- 10 (h) polyurea;
- 11 (i) phenolic resin;

- 12 (j) phenylene-based resin;
- 13 (k) isophthalic unsaturated polyester;
- 14 (l) orthophthalic unsaturated polyester; and
- 15 (m) blends of any of the components (a) through (l).

1 50. The engineering resin blend of claim 49, wherein the polyurethane is a
2 polyurethane foam.

1 51. A plastic resin blend comprising an intumescent flame retardant and at least
2 one polyolefin,

3 wherein the intumescent flame retardant is selected from the group consisting of:

- 4 (a) activated melamine pyrophosphate;
- 5 (b) activated melamine polyphosphate;
- 6 (c) activated ethylene diamine phosphate;
- 7 (d) activated ammonium polyphosphate;
- 8 (e) melamine;
- 9 (f) melamine phosphate;
- 10 (g) unactivated melamine pyrophosphate;
- 11 (h) unactivated melamine polyphosphate;
- 12 (i) melamine cyanurate; and
- 13 (j) blends of any of the components of (a) through (i),

14 wherein the polyolefin is selected from the group consisting of:

- 15 (a) polypropylene homopolymer;
- 16 (b) polypropylene copolymer;
- 17 (c) ethylene propylene diene monomer (EPDM);
- 18 (d) maleated propylene diene monomer (m-EPDM);

- 19 (e) ethylene-polypropylene copolymer;
- 20 (f) maleated ethylene-polypropylene copolymer (m-EP copolymers);
- 21 (g) a thermoplastic elastomer;
- 22 (h) a thermoplastic rubber;
- 23 (i) ethylene/vinyl acetate copolymer (EVA)
- 24 (j) a poly(4-methyl-1-pentene) homopolymer;
- 25 (k) poly(4-methyl-1-pentene/1-decene) copolymer;
- 26 (l) very low density polyethylene (VLDPE);
- 27 (m) low density polyethylene (LDPE);
- 28 (n) medium density polyethylene (MDPE);
- 29 (o) high density polyethylene (HDPE);
- 30 (p) linear low density polyethylene (LLDPE);
- 31 (q) crosslinked polyethylene (XLPE);
- 32 (r) crosslinked polypropylene (XLPP); and
- 33 (s) blends of any of the components (a) through (r).

- 1 52. An engineering resin blend comprising an intumescent flame retardant and at
2 least one engineering resin,
3 wherein the intumescent flame retardant is selected from the group consisting of:
- 4 (a) activated melamine pyrophosphate;
 - 5 (b) activated melamine polyphosphate;
 - 6 (c) activated ethylene diamine phosphate;
 - 7 (d) activated ammonium polyphosphate;
 - 8 (e) melamine;
 - 9 (f) melamine phosphate;
 - 10 (g) unactivated melamine pyrophosphate;

- 11 (h) unactivated melamine polyphosphate;
12 (i) melamine cyanurate; and
13 (j) blends of any of the components (a) through (i),
14 wherein the at least one engineering resin is selected from the group consisting of:
15 (a) nylon;
16 (b) poly(butylene terephthalate);
17 (c) poly(ethylene terephthalate);
18 (d) acrylonitrile butadiene styrene (ABS);
19 (e) nylon 6;
20 (f) nylon 6/6;
21 (g) nylon 11;
22 (h) nylon 12;
23 (i) polycarbonate;
24 (j) aromatic polyamide; and
25 (k) blends of any of the components (a) through (j).

1 53. A thermoset resin blend comprising an intumescent flame retardant and at least
2 one thermoset.

1 54. The thermoset resin blend of claim 53, wherein the thermoset resin is selected
2 from the group consisting of:

- 3 (a) polyester;
4 (b) polyolefin;
5 (c) epoxy;
6 (d) vinyl ester;
7 (e) alkyl polyester;

- 8 (f) melamine isocyanurate;
- 9 (g) polyurethane;
- 10 (h) polyurea;
- 11 (i) phenolic resin;
- 12 (j) phenylene-based resin;
- 13 (k) isophthalic unsaturated polyester;
- 14 (l) orthophthalic unsaturated polyester; and
- 15 (m) blends of any of the components (a) through (l).

1 55. The thermoset resin blend of claim 54, wherein the polyurethane is a
2 polyurethane foam.

1 56. The thermoset resin blend of claim 53, wherein the intumescent flame
2 retardant is selected from the group consisting of:

- 3 (a) activated melamine pyrophosphate;
- 4 (b) activated melamine polyphosphate;
- 5 (c) activated ethylene diamine phosphate;
- 6 (d) activated ammonium polyphosphate;
- 7 (e) melamine;
- 8 (f) melamine phosphate;
- 9 (g) unactivated melamine pyrophosphate;
- 10 (h) unactivated melamine polyphosphate;
- 11 (i) melamine cyanurate; and
- 12 (j) blends of any of the components (a) to (i).

1 57. The thermoset resin blend of claim 56, wherein the intumescent flame
2 retardant is a blend of activated ethylene diamine phosphate and melamine phosphate.

1 58. The thermoset resin blend of claim 53, wherein the intumescent flame
2 retardant comprises approximately 0 to 50 percent by weight of the thermoset resin blend.

1 59. The thermoset resin blend of claim 58, wherein the intumescent flame
2 retardant comprises approximately 5 to 25 percent by weight of the thermoset resin blend.

1 60. The thermoset resin blend of claim 59, wherein the intumescent flame
2 retardant comprises approximately 15 to 20 percent by weight of the thermoset resin blend.

1 61. The thermoset resin blend of claim 53, wherein the thermoset resin blend is a
2 concentrate.

1 62. The thermoset resin blend of claim 61, wherein the intumescent flame
2 retardant comprises approximately 30 to 95 percent by weight of the thermoset resin blend.

1 63. The thermoset resin blend of claim 53, further comprising at least one
2 engineering resin.

1 64. The thermoset resin blend of claim 63, wherein the at least one engineering
2 resin is selected from the group consisting of:

- 3 (a) nylon;
- 4 (b) poly(butylene terephthalate);
- 5 (c) poly(ethylene terephthalate);
- 6 (d) acrylonitrile butadiene styrene (ABS);
- 7 (e) nylon 6;
- 8 (f) nylon 6/6;
- 9 (g) nylon 11;
- 10 (h) nylon 12;
- 11 (i) polycarbonate;

12 (j) aromatic polyamide; and

13 (k) blends of any of the components (a) through (j).

1 65. The thermoset resin blend of claim 64, wherein the at least one engineering
2 resin is a blend of ABS/polycarbonate.

1 66. The thermoset resin blend of claim 53, further comprising at least one
2 additive.

1 67. The thermoset resin blend of claim 66, wherein the additive is selected from
2 the group consisting of:

3 (a) hindered phenolic stabilizer;

4 (b) acid scavenger;

5 (c) acid hydrotalcite;

6 (d) endothermic agent;

7 (e) UV absorber;

8 (f) nanoclay;

9 (g) nanomaterial;

10 (h) filler;

11 (i) fiberglass;

12 (j) metallic filler;

13 (k) curing agent;

14 (l) blowing agent;

15 (m) heat stabilizer;

16 (n) light stabilizer;

17 (o) plasticizer;

18 (p) accelerator;

- 19 (q) pigment;
- 20 (r) preservative;
- 21 (s) ultraviolet light stabilizer;
- 22 (t) colorant;
- 23 (u) antioxidant;
- 24 (v) antistatic agent;
- 25 (w) viscosity modifier;
- 26 (x) glass fiber; and
- 27 (y) blends of any of the components (a) through (x).

1 68. The thermoset resin blend of claim 67, wherein the additive comprises up to
2 approximately 75 weight percent of the thermoset resin blend based on polymer components
3 plus the additive.

1 69. The thermoset resin blend of claim 67, wherein the additive is glass fiber and
2 comprises up to approximately 60 weight percent of the thermoset resin blend based on
3 polymer components plus the additive.

1 70. The thermoset resin blend of claim 53, further comprising at least one plastic
2 resin.

1 71. The thermoset resin blend of claim 70, wherein the at least one plastic resin is
2 a polyolefin.

1 72. The thermoset resin blend of claim 71, wherein the polyolefin is selected from
2 the group consisting of:

- 3 (a) polypropylene homopolymer;
- 4 (b) polypropylene copolymer;

- 5 (c) ethylene propylene diene monomer (EPDM);
- 6 (d) maleated propylene diene monomer (m-EPDM);
- 7 (e) ethylene-polypropylene copolymer;
- 8 (f) maleated ethylene-polypropylene copolymer (m-EP copolymers);
- 9 (g) a thermoplastic elastomer;
- 10 (h) a thermoplastic rubber;
- 11 (i) ethylene/vinyl acetate copolymer (EVA)
- 12 (j) a poly(4-methyl-1-pentene) homopolymer;
- 13 (k) poly(4-methyl-1-pentene/1-decene) copolymer;
- 14 (l) very low density polyethylene (VLDPE);
- 15 (m) low density polyethylene (LDPE);
- 16 (n) medium density polyethylene (MDPE);
- 17 (o) high density polyethylene (HDPE);
- 18 (p) linear low density polyethylene (LLDPE);
- 19 (q) crosslinked polyethylene (XLPE);
- 20 (r) crosslinked polypropylene (XLPP); and
- 21 (s) blends of any of the components (a) through (r).

1 73. A thermoset resin blend comprising an intumescent flame retardant and at
2 least one thermoset resin,

3 wherein the intumescent flame retardant is selected from the group consisting of:

- 4 (a) activated melamine pyrophosphate;
- 5 (b) activated melamine polyphosphate;
- 6 (c) activated ethylene diamine phosphate;
- 7 (d) activated ammonium polyphosphate;
- 8 (e) melamine;

- 9 (f) melamine phosphate;
10 (g) unactivated melamine pyrophosphate;
11 (h) unactivated melamine polyphosphate;
12 (i) melamine cyanurate; and
13 (j) blends of any of the components (a) through (i),
14 wherein the at least one thermoset resin is selected from the group consisting of:
15 (a) polyester;
16 (b) polyolefin;
17 (c) epoxy;
18 (d) vinyl ester;
19 (e) alkyl polyester;
20 (f) melamine isocyanurate;
21 (g) polyurethane;
22 (h) polyurea;
23 (i) phenolic resin;
24 (j) phenylene-based resin;
25 (k) isophthalic unsaturated polyester;
26 (l) orthophthalic unsaturated polyester; and
27 (m) blends of any of the components (a) through (l).

1 74. A chemical resin blend comprising an intumescent flame retardant and at least
2 one resin selected from the group consisting of a plastic resin, an engineering resin and a
3 thermoset resin.

1 75. The chemical resin blend of claim 74, wherein the resin is a plastic resin.

- 1 76. The chemical resin blend of claim 74, wherein the resin is an engineering
2 resin.
- 1 77. The chemical resin blend of claim 74, wherein the resin is a thermoset resin.
- 1 78. The chemical resin blend of claim 74, wherein the intumescent flame retardant
2 is selected from the group consisting of:
3 (a) activated melamine pyrophosphate;
4 (b) activated melamine polyphosphate;
5 (c) activated ethylene diamine phosphate;
6 (d) activated ammonium polyphosphate;
7 (e) melamine;
8 (f) melamine phosphate;
9 (g) unactivated melamine pyrophosphate;
10 (h) unactivated melamine polyphosphate;
11 (i) melamine cyanurate; and
12 (j) blends of any of the components (a) through (i).
- 1 79. A cable comprising an intumescent flame retardant and at least one resin
2 selected from the group consisting of a plastic resin, an engineering resin and a thermostat
3 resin.
- 1 80. The cable of claim 79, wherein the cable is selected from the group consisting
2 of plenum cable, fiber optic cable, copper cable, telecommunications cable, and video cable.
- 1 81. The cable of claim 80, wherein the resin is a plastic resin.
- 1 82. The cable of claim 80, wherein the resin is an engineering resin.

1 83. The cable of claim 80, wherein the resin is a thermoset rein.

1 84. The cable of claim 80, wherein the intumescent flame retardant is selected
2 from the group consisting of:

3 (a) activated melamine pyrophosphate;

4 (b) activated melamine polyphosphate;

5 (c) activated ethylene diamine phosphate;

6 (d) activated ammonium polyphosphate;

7 (e) melamine;

8 (f) melamine phosphate;

9 (g) unactivated melamine pyrophosphate;

10 (h) unactivated melamine polyphosphate;

11 (i) melamine cyanurate; and

12 (j) blends of any of the components (a) through (i).

1 85. A pellet comprising an intumescent flame retardant and at least one resin
2 selected from the group consisting of a plastic resin, an engineering resin and a thermostat
3 resin.

1 86. The pellet of claim 85, wherein the resin is a plastic resin.

1 87. The pellet of claim 85, wherein the resin is an engineering resin.

1 88. The pellet of claim 85, wherein the resin is a thermoset rein.

1 89. The pellet of claim 85, wherein the intumescent flame retardant is selected
2 from the group consisting of:

3 (a) activated melamine pyrophosphate;

4 (b) activated melamine polyphosphate;

- 5 (c) activated ethylene diamine phosphate;
- 6 (d) activated ammonium polyphosphate;
- 7 (e) melamine;
- 8 (f) melamine phosphate;
- 9 (g) unactivated melamine pyrophosphate;
- 10 (h) unactivated melamine polyphosphate;
- 11 (i) melamine cyanurate; and
- 12 (j) blends of any of the components (a) through (i).